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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,587	10/17/2001	Yosuke Fujii	SIW-016	7569

959 7590 08/26/2004

LAHIVE & COCKFIELD, LLP.  
28 STATE STREET  
BOSTON, MA 02109

EXAMINER
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RUTHKOSKY, MARK

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/982,587

Applicant(s)

FUJII ET AL.

Examiner

Mark Ruthkosky

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1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/30/2004 has been entered.

### ***Response to Amendment***

Claims 1-6 had been pending in the application. Claims 7-21 have been added. Claims 1-21 are currently active in the application and have been examined.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The rejection of claims 1 and 6 under 35 U.S.C. 102(b) as being anticipated by Davis (GB 2,326,017) has been overcome by the applicant's amendment. Davis teaches that the sealing materials are disposed around the circumference of the separator plate as shown in figure 4.

Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishida (JP 2000-021418.)

The instant claims are to a fuel cell comprising a pair of separators; a membrane electrode assembly (MEA) including an electrolyte membrane and an anode and a cathode disposed at both sides of the electrolyte membrane with the membrane electrode assembly being held by the pair of separators. A sealing member is disposed between the MEA and a first of said pair of the separators, the sealing member including a circumferential portion surrounding at least a portion of the circumference of the first separator, and an extended portion seamlessly connected to and extending from the circumferential portion over a surface of the separator. A reactant gas channel is disposed between the MEA and the first separator, with the extended portion of the sealing member extending along a significant portion of the gas channel in order to direct the flow of a fluid flowing there along.

Nishida (JP 2000-021418) teaches a fuel cell comprising a pair of separators; a membrane electrode assembly (MEA) including an electrolyte membrane and an anode and a cathode disposed at both sides of the electrolyte membrane with the membrane electrode assembly being held by the pair of separators see figures 2-3 and paragraphs 28-31.) The separator is a sheet metal plate (para. 24.) A sealing member is disposed between the MEA and a first of said pair of the separators, the sealing member including a circumferential portion

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surrounding at least a portion of the circumference of the first separator, and an extended portion (for example, see the features of the gasket in figures 2a and 2b which extend into the interior of the plate including elements 5 and 15) seamlessly connected to and extending from the circumferential portion over a surface of the separator (see figures 1-4 and the accompanying text in the disclosure of Nishida.) A reactant gas channel is disposed between the MEA and the first separator, with the extended portion of the sealing member extending along a significant portion of the gas channel in order to direct the flow of a fluid flowing there along (figures 2a and 2b.) The separator plate is made of thin metals and includes a plurality of grooved channels (figures) that transfer reactants (figures 1-4 and accompanying text.) A gas-guiding groove with a turning portion and a linear portion is disclosed (figure 2a.) The gas channels are u-shaped with portions of the sealing material extending to and along adjacent channels to separate the channels and form turning portions.

### ***Claim Rejections - 35 USC § 103***

The rejection of claims 2-4 and 5 under 35 U.S.C. 103(a) as being unpatentable over by Davis (GB 2,326,017) in view of Nishida (JP 2000-021418) has been overcome by the applicant's amendment.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

***Examiner Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 571-272-1291. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:30.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark Ruthkosky  
Primary Patent Examiner  
Art Unit 1745

*Mark Ruthkosky*  
8/24/04